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ABSTRACT

This study examined the preferences of middle grade students in selecting traits for their own future infants. Sixth- and seventh-grade populations of two elementary schools (173 males and 90 females) participated. A simulated activity entitled "Parenting 1995" was developed to provide the future setting and the instrument through which to explore the qualities preadolescents would select. A lesson on genetics preceded the presentation of instrument. Students were asked to imagine that they were living in the future with the ability to genetically engineer their children. Participants were then asked to select, from a list of 25 and list in order of preference, 8 traits for their unborn child. Selection preferences were divided into internal and external qualities. Among the findings were the following: (1) internal traits were ranked more highly than external traits; (2) females viewed honesty, responsibility, and creativity as significantly more important traits than did males; and (3) males rated strength, height, and quickness as more important than did females. (BJD)

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Trait Selection Preference
of Preadolescents

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Abstract

Genetic engineering, cloning, and the creation of test-tube babies are causing not only scientific but also moral and ethical controversy. Such conflict will continue to force decision-making of tremendous consequence during the next decades. Education today has a responsibility to develop students who will be the problem-solvers able to effectively handle decisions of such magnitude.

Simulation is an ideal technique to use in the classroom to anticipate future problems and, consequently, lessen future shock. Therefore, simulation set in 1995 was used in sixth and seventh grade classrooms. Students determined the qualities they would genetically engineer into their own children. Students prioritized eight traits from a list of 25.

Analysis of variance determined priorities for the entire sample of 263 and for each subgroup. Honesty, intelligence, and common sense were the preferred traits for the sample.

The Sheffé post hoc comparison test was employed to determine differences among gender and racial subgroups. Females viewed honesty, responsibility, and creativity as significantly more important traits than did males.

Conversely, males rated strength, height, and quickness as more important. Blacks rated sense of humor, courage, and independence as more important than whites. Whites ranked intelligence, coordination, hair color, and eye color as significantly more important traits than did blacks.

Trait Selection Preferences of Preadolescents

Genetic engineering began thousands of years ago with the domestication of plants and animals to create a reliable food source (Motulsky, 1983) progressing to the possibilities today which are viewed with a combination of wonderment and fright. Gene therapy with its potential to control hereditary defects and to biologically produce disease-resistant crops is a welcome advance but the accompanying potential that Davis (1983) summarizes as reshaping human bodies and personalities or creating subhuman hybrids produces a climate of apprehension.

Recent developments in genetic engineering, cloning, and headlines concerning test-tube babies are causing discussions today in elementary classrooms that once were exclusive to technical laboratories. The impact of decisions and selections to be encountered in these areas reflects the continuing responsibility of education to develop problem solvers. The possibilities of the human species to design its own future (Fisher, 1982) will force choices, decision-making, and judgment of monumental import.

The purpose of this study was to examine the preferences of middle grade students, the parents of 1995, in selecting traits which they would choose for their own infant.

Method

Subjects. Sixth and seventh grade populations of two elementary schools in a southeastern population center of approximately 100,000 were

the subjects of the study. Schools were selected that had a representative range of socio-economic groups.

Of the 263 subjects, 173 were males and 90 were females. Racially the group was split with 131 blacks and 132 whites. Subgroups included 81 white males, 92 black males, 51 white females, and 39 black females.

Instrument. A simulated activity, Parenting 1995, was developed to provide the future setting through which to explore the qualities that preadolescents would select for their children. The simulation was field tested with education majors and fifth grade students. Adjustments were made to clarify the instrument.

The form given to students consisted of the list of traits and a series of blanks numbered one through eight signifying first through eighth choices. Instruments were coded with two letters which identified subgroups.

Procedures. A lesson on genetics preceded the presentation of the instrument. Following the lesson, coded instruments were distributed. Each trait was defined and discussed with students supplying accompanying examples. Students were then asked to imagine that they were living in the future with the ability to genetically engineer. They were to select eight traits for their unborn child which they listed in order of preference. Papers were collected and a discussion followed regarding preferences. To reduce the possibilities of discussion of preferences among subjects, research was conducted in all classrooms of each school during the same day.

Results

Overall preference. For clarity of examination, selection preferences were divided into internal and external qualities. Internal traits were

ranked more highly than external traits. Honesty, intelligence, and common sense were the preferred traits while physical characteristics such as eye color, skin color, height, quickness, weight, and nose shape were least preferred. Internal qualities received a mean ranking of nine while external qualities received a mean ranking of 17. The mean rank of internal traits ranged from top ranked honesty to 19th ranked stability while external traits ranged from fourth placed gender to bottom ranked shape of nose. Complete rankings appear in Table 1. Rankings divided into external and internal groups are presented in Table 2.

Insert Table 1 about here

Insert Table 2 about here

Gender. Male and female students agreed on the most and least important characteristics. Honesty was viewed as most important with nose shape at the bottom of the rankings. All other rankings differed with the exception of patience as the 11th preference of both groups.

Several significant differences were located. Females felt that honesty, responsibility, and creativity were significantly more important. Males placed higher priority on strength, height, and quickness.

Male and female preferences can be seen in Table 3 with the strength of significant differences being summarized in Table 4.

Insert Table 3 about here

Insert Table 4 about here

Race. Black and white subjects agreed on the same top five traits though the order varied slightly. Honesty again was most valued and nose shape least valued.

Significant differences were also found in this subgroup. White students rated intelligence, coordination, hair color, and eye color as more important than black students. Sense of humor, courage, independence, and body shape were given higher priority by black students.

Rankings for black and white subgroups are available in Table 5 with significant differences being outlined in Table 6.

Insert Table 5 about here

Insert Table 6 about here

Interactions. No significant interactions were found when comparing the four subgroups by race and sex.

Discussion

Overall preferences. The strong preference for internal traits over external or physical traits is surprising when considering the emphasis on physical beauty in our culture and the importance of appearance to pre-adolescents. Jenkins (1981) cited the anxiety about growth and appearance in early years due to rapid body change which occurs at a time when the permanent body build is becoming evident. Overcoming such personal pre-occupation to select internal qualities seemed to reflect deep consideration of the problem presented in the simulation. Anticipation of the future is not usually possible for students prior to this point in their life (Klineberg, 1967) and making the future problem personal by selecting traits for one's own child seemed to aid taking the simulation seriously.

Honesty being ranked as most important may be expected due to the great value which preadolescents place on "the letter of the law." Fair treatment by significant adults is a prime factor in respect at this age. Early adolescents are still largely in a stage of moral realism where situations are rigidly and literally judged with motive and extenuating circumstances receiving little regard (Piaget and Inhelder, 1969).

The sex of the baby was the highest ranked external quality. The preferred sex was not ascertained in this study. Other high ranking external qualities seem to reflect adolescent concerns such as being coordinated, being strong, having clear skin, and not needing braces.

Gender. With the exception of top and bottom rankings, little similarity is seen in preferences when male and female subgroups are considered. Male

student concern over athletics at this age may explain the significantly greater importance given by that subgroup to the physical qualities of strength, height, and quickness. At these grade levels, male athletic ability is an especially important quality for peer approval with Mussen and Jones (1957) noting that physically advanced boys are more popular and better adjusted. Males are also sensitive to size because females between the ages of eleven and fourteen are commonly taller and heavier (Biehler, 1983).

Females at this age are more likely than males to engage in leisure activities regarded as creative. Traditionally such activities have been more socially acceptable for females than males at this age.

Race. Though the order varied slightly, the same top five traits were selected by both white and black subjects. Atolagbe (1980) in a study of children's values found greater variation within the races and classes than between the race and class. Atolagbe concluded that "...blacks and whites have values which are more alike than different" (p. 451).

Differences which were significant in this study included a higher priority for whites in selecting hair and eye color presumably because the range of choice is larger. Research was not located that would provide a rationale for the other significant differences.

References

- Atolagbe, E. Further study on values of black and white children: Are they different? Journal of Negro Education, 1980, 49, 448-452.
- Biehler, R. F. Psychology applied to teaching. Boston: Houghton-Mifflin Company, 1983.
- Davis, B. D. The two faces of genetic engineering in man. Science, 1983, 219, 1381.
- Fisher, A. The revolution in bioengineering. Popular Science, 1982, 220, 87-91.
- Jenkins, G. G. The ups and downs of early adolescents. Childhood Education, 1981, 57, 198-199.
- Klineberg, S. L. Changes in outlook on the future between childhood and adolescence. Journal of Personality and Social Psychology, 1967, 7, 185-193.
- Motulsky, A. G. Impact of genetic manipulation on society and medicine. Science, 1983, 219, 135.
- Mussen, P. H. and Jones, M. C. Self-conceptions, motivation, and interpersonal attitudes of late and early maturing boys. Childhood Development, 1957, 28, 243-256.
- Piaget, J., and Inhelder, B. The psychology of the child. New York: Basic Books, 1969.

Table 1

Rankings of Preferred Traits of Preadolescents (n = 263)

Trait	Adjusted $\bar{X}$
honesty	5.02
intelligence	5.75
common sense	5.96
gender	6.33
responsibility	6.54
kindness	7.18
sense of humor	7.56
coordination	7.57
strength	7.60
courage	7.70
sociability	7.71
patience	7.73

Table 1--continued

Trait	Adjusted $\bar{x}$
independence	7.78
determination	7.79
creativity	8.05
good physique	8.10
good complexion	8.17
good teeth	8.20
stability	8.22
color of eyes	8.33
skin color	8.38
height	8.39
quickness	8.41
weight	8.56
shape of nose	8.86

Table 2
Ranking of Traits in Internal and External Categories

External		Internal	
Trait	Rank	Trait	Rank
gender	4	honesty	1
coordination	8	intelligence	2
strength	9	common sense	3
good physique	16	responsibility	5
good complexion	17	kindness	6
good teeth	18	sense of humor	7
color of eyes	20	courage	10
color of skin	21	sociability	11
height	22	patience	12
quickness	23	independence	13
weight	24	determination	14
shape of nose	25	creativity	15
		stability	19

Table 3

Results of the ANOVA Comparing Preferred Traits of Male and Female Preadolescents

Males (n = 173)		Females (n = 90)	
Trait	Adjusted $\bar{X}$	Trait	Adjusted $\bar{X}$
honesty	5.39	honesty	4.65*
common sense	5.71	intelligence	5.76
intelligence	5.73	responsibility	5.94**
gender	6.36	common sense	6.21
strength	6.94**	gender	6.30
responsibility	7.13	kindness	6.93
sense of humor	7.30	sociability	7.70
coordination	7.36	determination	7.73
kindness	7.42	coordination	7.77
courage	7.54	independence	7.79
patience	7.67	patience	7.80
sociability	7.72	sense of humor	7.82
independence	7.77	creativity	7.83*

Table 3--continued

Males (n = 173)		Females (n = 90)	
Trait	Adjusted $\bar{X}$	Trait	Adjusted $\bar{X}$
determination	7.86	courage	7.86
height	8.10**	good complexion	7.99
good physique	8.18	stability	8.03
quickness	8.20*	good teeth	8.05
creativity	8.27	good physique	8.07
skin color	8.27	strength	8.26
good complexion	8.34	eye color	8.28
good teeth	8.35	skin color	8.50
eye color	8.37	weight	8.53
stability	8.41	quickness	8.62
weight	8.58	height	8.63
shape of nose	8.86	shape of nose	8.86

*F Significant at .05 level

**F Significant at .01 level

Table 4
Results of Scheffé Test Identifying Significant Differences
in Male and Female Preferences

Trait	Significant Difference
strength	male > female**
height	male > female**
quickness	male > female*
honesty	female > male*
responsibility	female > male**
creativity	female > male*

*F Significant at .05 level

**F Significant at .01 level

Table 5
Results of the ANOVA Comparing Preferred Traits
of Black and White Preadolescents

White (n = 132)		Black (n = 131)	
Trait	Adjusted $\bar{X}$	Trait	Adjusted $\bar{X}$
honesty	5.16	honesty	4.77
intelligence	5.46*	common sense	5.46
common sense	6.23	gender	6.03
gender	6.48	intelligence	6.30
responsibility	6.60	responsibility	6.41
kindness	7.11	sense of humor	6.82**
coordination	7.29**	courage	7.16**
sociable	7.55	strength	7.22
patience	7.65	kindness	7.31
hair color	7.68**	independence	7.42*
determination	7.79	determination	7.81

Table 5--continued

White (n = 132)		Black (n = 131)	
Trait	Adjusted X	Trait	Adjusted X
strength	7.79	patience	7.89
sense of humor	7.94	creativity	7.93
independence	7.96	sociability	8.02
courage	7.98	body shape	8.04*
good complexion	8.05	coordination	8.10
creativity	8.11	teeth	8.16
good physique	8.13	stability	8.19
eye color	8.15*	complexion	8.40
good teeth	8.22	skin color	8.47
stability	8.24	weight	8.56
height	8.28	hair color	8.53
quickness	8.31	quickness	8.60
skin color	8.34	height	8.60
weight	8.55	eye color	8.68
shape of nose	8.81	shape of nose	8.96

*F Significant at .05 level

**F Significant at .01 level

Table 6
Results of Scheffé Test Identifying Significant Differences
of Racial Trait Preferences

Trait	Significant Difference
coordination	white > black**
hair color	white > black**
intelligence	white > black*
eye color	white > black*
sense of humor	black > white**
courage	black > white**
independence	black > white*
body shape	black > white*

*F Significant at .05 level

**F Significant at .01 level